UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/950,097
Filing Date: September 10, 2001
Appellant(s): Stylinski et al.

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Group 3700

Brett A. Carlson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/24/2006

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. The after final amendment filed on 3/29/2005 has been entered in order to overcome the rejection under 35 USC § 112 first paragraph set forth in the Final Rejection mailed 2/23/2005.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: Claims 1, 7, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman, Lin, Darago, and Salisbury. The rejection does not rely on "additional information known in the art" as purported by appellant.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Huffman et al. - US 6,053,736; hereinafter Huffman
Lin - USPN 6,478,581 B1
Darago et al. - US 6,170,014 B1; hereinafter Darago
Salisbury "Web-Based Simulation Visualization using Java3D"

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 4, 6-7, 9-11, 13-16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman et al. (USPN 6,053,736; hereinafter Huffman) in view of Lin (USPN 6,478,581 B1), further in view of Darago et al. (USPN 6,170,014 B1; hereinafter Darago), still further in view of Salisbury "Web-Based Simulation Visualization using Java3D".

Independent claims:

Regarding independent claims 1, 7, and 15, Huffman discloses a content-providing system for a flight simulator over a network to remotely-located users 11, the system comprising: a gateway having an interface 11c to a digital network (See Col. 4, lines 66-67); and at least one general-purpose host computer system 16 executing a server portion of the flight simulator program (Col. 9, lines 62-67); wherein the gateway is operable to connect to the server portion from a user executing a client portion 11 of the flight simulator program over the digital network (Col. 4, lines 37-38, 49-55; Col. 5, lines 13-17), and to establish a connection between the client portion and the server portion such that primary processing for the flight simulator takes place at the server portion, and such that interface updates are processed at the client portion (Col. 5, lines 8-12). Huffman does not explicitly use the term "simulation card". However, it is noted that appellant's specification describes a "simulation card" in the specification, as "cards that execute programs that are to be accessed by users across a network" (appellant's specification, P. 12, lines 15-17). Accordingly, Huffman discloses a memory card 17 comprising simulation programming wherein memory card 17 may reside on the host computer 16 for delivering simulation data to client portion 11 (Huffman, Col. 7, lines 56-61).

Huffman discloses simulation programming for simulating an actual aircraft, but does not explicitly disclose the feature of *using code that is based upon actual code from an actual aircraft component*. However, it is noted by the examiner that the purpose of a simulation system is to closely

emulate an actual system. Therefore, if not implicit, it would be obvious to an artisan to mimic various

characteristics of an actual system in order to provide a realistic simulation system. In addition, Lin

discloses a flight simulation system wherein simulation code is derived from an actual aircraft component

and modified to operate on a simulation system (Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64). Hence, in

view of Lin, it would have been obvious to one of ordinary skill in the art to modify the simulation

described in Huffman, by providing a simulation comprising code derived from an actual aircraft

component in order to simulate real avionics equipment in a flight simulator environment, thereby

providing a more realistic simulation for providing training (See Lin, Col. 1, lines 19-25,Col. 2, lines 20-

25, 62-64; Col. 4, lines 49-51).

The combination of Huffman and Lin discloses all of the claimed subject matter of claims 1, 7,

and 15 with the exception of explicitly disclosing a database operable for providing *authentication*

information of a user. However, Darago teaches a system for managing courseware in a shared

environment via a network, wherein the courseware may include a flight simulator (Col. 1, lines 30-32),

and wherein the system accesses database 302 and 408 to verify user authentication information and

billing information (Col. 10, lines 50-61; Col. 3, lines). Hence, in view of Darago, it would have been

obvious to an artisan to modify the storage unit described in the combination of Huffman and Lin, by

providing a database comprising user authentication information of users, in order to protect licensed

content and to limit use of the content to registered users that are charged accordingly for usage.

The combination of Huffman, Lin, and Darago does not explicitly disclose a "browser", however,

it is the examiner's position that it is well known to utilize a browser program for providing an interface

for a user in a network system. In addition, Salisbury teaches a web-based simulation system comprising

a browser (see Fig. 2; P. 1427). Thus, in view of Salisbury, it would have been obvious to one of

ordinary skill in the art to modify the user interface described in the combination of Huffman, Lin, and

Darago, by providing a browser, in order to provide a user interface capable of delivering a three-

dimensional simulation from a web-server.

Additionally, Huffman discloses a flight simulator accessed through a network, comprising a host

computer 16 that transfers data to client computer 11. Huffman does not explicitly disclose (as per claims

1 and 7) a *public* digital network between host computer 16 and client computer 11. However, it is the

examiner's position that providing computerized training over a *public* network is notoriously well known

in the art for providing training to users at a number of distributed sites, thereby overcoming geographical

limitations that require students be in one specific location. Furthermore, both Darago (Col. 9, lines 25-

52) and Salisbury (See Abstract; Fig. 1) teach a system for providing training over a public digital

network. In particular, Salisbury describes a networked simulation system wherein web-based simulation

is provided utilizing hypertext transfer protocol (HTTP), which is a set of rules for transferring data on the

World Wide Web (See P. 1426, Fig. 1; Col. 1-2). Clearly, one of ordinary skill in the art would be

motivated to modify the local area network described in Huffman, by providing the distributed interactive

simulation over a *public* network, such as the Internet, in order to provide simulation and training to users

at a number of distributed sites, thereby overcoming geographical limitations that require students be in

one specific location (See Salisbury See Abstract; Fig. 1). Furthermore, Appellant's specification

discusses various network configurations including both public and private networks, and it is appellant's

own admission that "Such communication methods are well known in the art, and are covered in a variety

of standard texts." *See Appellant's specification, P. 10, lines 9-19.*

Dependent claims:

Regarding claims 4 and 9-10, the combination of Huffman and Lin does not explicitly disclose

that the gateway is configured to "update billing information" (as per claim 4) according to "time of

usage" as per claims 9-10. However, Darago discloses a system for delivering simulator content or

training content (Col. 1, lines 30-32) over a network, wherein meter manager 406 monitors and updates a

user's usage of content for billing purposes (Col. 15, lines 12-20). Hence, in view of Darago, it would

have been obvious to an artisan to modify the system described in the combination of Huffman and Lin,

by tracking and updating billing information, in order to charge users based on usage of licensed content.

Regarding claims 6, 13, and 18, Huffman discloses all of the claimed subject matter with the

exception of explicitly disclosing that the actual aircraft component is a flight management system

(FMS). However, Lin discloses a networked flight simulation system wherein simulation code is derived

from an actual flight management system (Col. 2, lines 20-25; Col. 8, line 31; Fig. 2). Hence, in view of

Lin, it would have been obvious to a person of ordinary skill in the art to modify the simulation described

in Huffman, by providing a simulation comprising code derived from an OFP – operational flight

program in order to simulate real avionics equipment in a flight simulator environment (See Lin, Col. 1,

lines 19-25,Col. 2, lines 20-25, 62-64; Col. 4, lines 49-51).

Regarding claims 11 and 16, Huffman discloses a program that is an aircraft simulation program

(See Abstract).

Regarding claim 14, Huffman does not explicitly use the term "simulation card. It is noted that

applicant's specification describes a "simulation card" in the specification, as "cards that execute

programs that are to be accessed by users across a network" (Applicant's specification, P. 3, Paragraph

28). Accordingly, Huffman discloses a memory card 17 comprising simulation programming wherein

memory card 17 may reside on the host computer 16 for delivering simulation data to client portion 11

(Huffman, Col. 7, lines 56-61).

Regarding claims 19-22, Huffman discloses a flight simulation system provided via a network,

wherein the network is (as per claims 19 and 21) a distributed interactive simulation network (see Fig. 1);

and (as per claims 20 and 22) wherein the network is a high-level architecture network (see Abstract).

(10) Response to Argument

Appellant's threshold argument is that the combination of Huffman, Lin, Darago, and Salisbury

does not disclose a gateway and does not relate to providing a simulation to a user across a network in any

manner. However, the examiner disagrees. Claims are given their broadest reasonable interpretation in

light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed.

Cir. 1997). Appellant's specification provides the following description for a gateway:

"Router/Gateway 132 (also referred to herein as simply 'gateway 32') includes any number of hardware, software, and networking components to provide a suitable website or other network-based graphical user interface that is accessible by users on network 106. Gateway 132 further provides the security authentication and access control as described below". *See Appellant's specification, P. 11, lines 4-8.*

Huffman discloses a networked flight simulation training system including host computer 16, student/pilot consoles 11, host interface 11c, and student console user interface 11b (See Figs. 1-2). Student/pilot consoles allow an operator to control one or more simulated aircraft (See Col. 3, lines 52-53). Simulation programming is stored in memory 17 which may be located in student consoles 11 or host computer 16 based on design choice (See Col. 7, lines 50-59). Huffman discloses hardware, software, and networking components for providing a network-based graphical user interface that is accessible by users on a network, and therefore discloses a gateway.

It is the examiner's position that Huffman discloses all of the claimed gateway features with the exception of explicitly disclosing a *public network* and the feature of *authenticating users* accessing the network. However, Darago teaches a system for managing courseware in a shared environment via a network, wherein the courseware may include a flight simulator (Col. 1, lines 30-32), and wherein the system accesses database 302 and 408 to verify user authentication information and billing information (Col. 10, lines 50-61; Col. 3, lines). Hence, in view of Darago, it would have been obvious to an artisan to modify the storage unit described in the combination of Huffman and Lin, by providing a database comprising user authentication information of users, in order to protect licensed content and to limit use of the content to registered users that are charged accordingly for usage.

In addition, with respect to the public network, initially, it is noted that independent claim 15 does not include any claim limitation of a public network. Accordingly, limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). Furthermore, it is the examiner's position that providing computerized training over a *public* network is notoriously well known in the art for providing training to users at a number of

distributed sites, in order to overcome geographical limitations that require students be in one specific

location. Furthermore, both Darago (Col. 9, lines 25-52) and Salisbury (See Abstract; Fig. 1) teach a

system for providing training over a public digital network. In particular, Salisbury describes a

networked simulation system wherein web-based simulation is provided utilizing hypertext transfer

protocol (HTTP), which is a set of rules for transferring data on the World Wide Web (See P. 1426, Fig.

1; Col. 1-2). One of ordinary skill in the art would be motivated to modify the local area network

described in Huffman, by providing the distributed interactive simulation over a *public* network, such as

the Internet, in order to provide training to users at a number of distributed sites, thereby overcoming

geographical limitations that require students be in one specific location (See Salisbury See Abstract; Fig.

1). Also, Appellant's specification discusses various network configurations including both public and

private networks, and it is appellant's own admission that "Such communication methods are well known

in the art, and are covered in a variety of standard texts." *See Appellant's specification, P. 10, lines 9-19.*

Appellant additionally purports that the combination of references fails to disclose the feature of

providing one or more simulation cards having code that is based upon executable code used in an actual

aircraft component. However, the examiner respectfully disagrees. It is noted that appellant's

specification describes a "simulation card" in the specification, as "cards that execute programs that are to

be accessed by users across a network" (appellant's specification, P. 12, lines 15-17). Accordingly,

Huffman discloses a memory card 17 comprising simulation programming wherein memory card 17 may

reside on the host computer 16 for delivering simulation data to client portion 11 (Huffman, Col. 7, lines

56-61). Huffman discloses simulation programming on simulation cards for simulating an actual aircraft,

but does not explicitly disclose the feature of *using code that is based upon actual code from an actual*

aircraft component. However, the purpose of a simulation system is to closely emulate an actual system.

Therefore, if not implicit, it would have been obvious to an artisan to mimic various characteristics of an

actual system in order to provide a realistic simulation system. In addition, Lin discloses a flight

simulation system wherein simulation code is derived from an actual aircraft component and modified to

operate with a simulation system (Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64). Hence, in view of Lin, it

would have been obvious to one of ordinary skill in the art to modify the simulation described in

Huffman, by providing a simulation comprising code derived from an actual aircraft component in order

to simulate real avionics equipment in a flight simulator environment, thereby providing a more realistic

simulation for providing training (See Lin, Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64; Col. 4, lines 49-

51).

Appellant argues that the combination of Huffman and Lin results in a standalone flight simulator

with an actual cockpit display navigation unit wired into the simulator. However, the examiner disagrees.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated

into the structure of the primary reference; nor is it that the claimed invention must be expressly

suggested in any one or all of the references. Rather, the test is what the combined teachings of the

references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981). In this case, Lin would have suggested to one of ordinary skill in the art, that it

is desirable to provide a simulator that closely emulates an actual system rather than bodily incorporating

Lin's simulator system into the simulator system described in Huffman. The standard of patentability is

what the prior art, taken as a whole, suggests to an artisan at the time of the invention. *In re Merck &*

Co., Inc., 800 F.2d 1091,1097, 231 USPQ 375, 379 (Fed. Cir. 1986). The question is not only what the

references expressly teach, but what they would collectively suggest to one of ordinary skill in the art. *In*

re Simon, 461 F.2d 1387, 1390, 174 USPQ 114, 116 (CCPA 1972).

In response to appellant's argument that the examiner's conclusion of obviousness is based upon

improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense

necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only

knowledge which was within the level of ordinary skill at the time the claimed invention was made, and

does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to appellant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d,982, 18 USPQ2d 1885 (Fed. Cir. 1991).
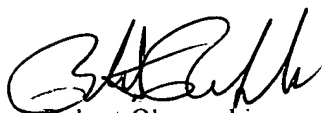
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Cameron Saadat
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October 5, 2006

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